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General Purpose Forces Compared:

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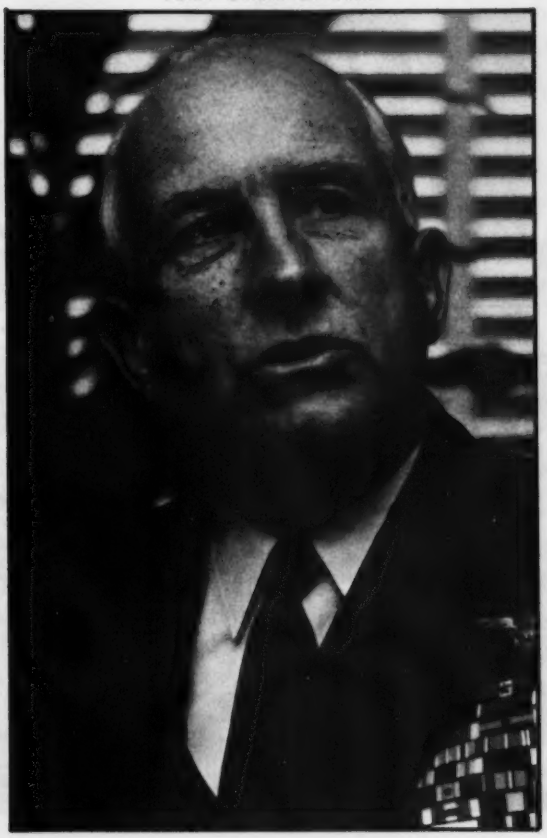

THE UNITED STATES OF AMERICA

THE UNION OF SOVIET SOCIALISTS REPUBLIC

THE PEOPLE'S REPUBLIC OF CHINA

The dynamic equilibrium now existing between the United States strategic forces and those of the Soviet Union increases significantly the importance of U.S. general purpose forces (including theater nuclear forces) in the deterrence of conflict below the level of strategic nuclear war. Neither the U.S. nor the U.S.S.R. will be capable in the foreseeable future of executing a disarming first strike. Under these circumstances, as vital as they are in maintaining an overall deterrent to major conflicts, strategic nuclear forces are less likely today to deter the lesser forms of conflict than in the days of our overwhelming nuclear superiority. Therefore, ready, mobile, and versatile general purpose forces, sufficient to provide a deterrent of their own, must continue to be one of our prime objectives and concerns.

GENERAL PURPOSE FORCES COMPARED

By

Adm. Thomas H. Moorer, USN

Chairman,
Joint Chiefs of Staff

Detente, as we have seen this past year, does not mean the total absence of tension between the U.S. and U.S.S.R., nor does the positive improvement in our relations with the People's Republic of China (P.R.C.) mean that the possibility for conflict in Asia has been removed. Economic imbalance, political ambition, social upheaval, resource demands, and military adventurism remain among the potential causes of war. Hopefully, continued diplomatic efforts ultimately will be able to establish a world order capable of settling all disputes through political and legal mechanisms without the use of force or the threat of force. Until that time, the United States and its allies must remain fully prepared to protect and defend our vital interests wherever and whenever threatened by those who would be our adversaries. Our ability to protect these vital interests in military situations, short of strategic nuclear war and particularly at the lower end of the violence spectrum, depends to a great extent on our general purpose forces.

I will provide an overall comparison of United States general purpose forces with those of the Soviet Union and the People's Republic of China, with some emphasis on deployments; a brief analysis of the U.S., U.S.S.R., and P.R.C. land, sea, and air general purpose forces; and a brief discussion of the recent Middle East war with emphasis on important conclusions.

Overview

The Soviet Union maintains an impressive active duty force strength of about four million men, backed up by a trained reserve force of at least another four million men who have served with the active forces in the last five years. There are about 20 million men registered in the ground force reserve alone. Large as it is, the active force of the Soviet Union is not as large as the P.R.C.'s active establishment, which has a strength of over four million men and an armed militia of over five million men. By way of comparison, the United States maintains a much smaller active force of about two million, supplemented by about one million individuals in selected reserve units plus others who are individually available for immediate mobilization. There are about three million total U.S. reservists, standby, and retired members. Of course, each of the three nations mentioned could, over time, field a much larger force. These figures simply display the force levels that would be available in the initial stages of a major conflict.

The United States, of course, does not plan to emulate the U.S.S.R. or P.R.C. in acquiring, training, equipping, and maintaining a peacetime general purpose force of such great size. In gross terms, it costs the United States many times more in one-time investment and in annual incremental costs to recruit, train, and maintain a general purpose force soldier than it costs the U.S.S.R. Thus, if the United States were to attempt to compete in terms of numbers with the Soviet Union, it would require far more than the current DoD budget just to maintain equivalent general purpose force levels. Conscription and rigidly controlled economies, of course, are burdens borne by the U.S.S.R. that appreciably reduce the costs to maintain such large general purpose forces.

These fiscal realities alone, however, do not determine the relative size of the forces. Geopolitical realities also play a major role in determining force requirements. The Soviet Union is a massive heartland astride two continents, at once a European and an Asian nation, contiguous to most of the world's major powers—Western Europe, Japan, China, and the Middle East. The United States, on the other hand, is an insular nation, continental in size, unthreatened by hos-

tile neighbors, and separated from important interests and allies by two oceans. Our general purpose forces reflect this position and perspective.

U.S., U.S.S.R. General Purpose Forces Dispositions

The geopolitical factors discussed above also play a major role in the pattern of deployments of the U.S. and the U.S.S.R. Because of its geography and political goals, the U.S.S.R. deploys forces, not only for greater internal security, but also as a direct adjunct to its externally deployed forces. Thus, considering location and disposition, the forces along its borders are, in reality, forward-deployed forces projecting global Soviet power. Soviet forces are deployed forward on a massive scale, are offensively designed, and are concerned with controlling buffer states as well as projecting power.

In contrast, our Armed Forces are not located within the United States for internal security reasons, nor are they deployed overseas with any intent to coerce our allies. We seek only to deter potential adversaries across the entire spectrum of conflict as well as to assure our most important allies. If our deterrence and assurances are to be credible, they must be based on clearly evident warfighting capabilities. Basic to this capability is the concept of forward defense. Under this concept, the United States maintains forward-deployed forces and reinforcement capabilities in defense of U.S. and allied interests. Accordingly, certain locations require a U.S. force presence primarily to assure allies of our resolve to honor our commitment or to otherwise support U.S. peacetime political interests. These deployments are small and essentially defensive in nature.

The nine divisions located in the Continental United States include a mix of forces composed of every type U.S. division, including two Marine divisions. Fifty-eight percent of our tactical air (TACAIR) squadrons are maintained in the United States. These are highly mobile forces capable of responding to worldwide contingencies. The concentration of naval forces adjacent to European waters reflects the high priority assigned to the security of this region.

Should deterrence fail in Europe, U.S. forces in conjunction with our North Atlantic Treaty Organization (NATO) allies must be capable of halting the aggression firmly and swiftly. We have a capability to accomplish this mission today, and it is the recognition of this capability that underpins the initiatives toward detente in Europe. The adverse trend in relative strength between NATO and the Warsaw Pact has been discussed in past statements. We must continue to improve the combat potential of U.S. forces and to urge our allies to modernize and improve the combat readiness of their forces.

The Secretary of Defense has concentrated on the NATO/Warsaw Pact balance. Repetition here of what he has described already would serve no useful purpose. Suffice it to say, deployment of

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substantial U.S. forces in Europe and the Mediterranean is still required to supplement the forces of our allies more directly in contact with potential adversaries. Significant unilateral reduction of American military presence from the European area would affect adversely the military balance between NATO and the Warsaw Pact, and would affect adversely ongoing attempts to reduce our force levels through Mutual and Balanced Force Reductions (MBFR) negotiations. A unilateral change of this nature would damage simultaneously the security interests of the United States because, as I indicated last year, I firmly believe that the fate of Western Europe is of vital importance to our own security.

U.S. Asian deployments, which are heavy in naval and air assets, reflect both our commitment to the area and our insistence that our allies continue to provide the manpower necessary for their own defense. It remains a U.S. goal to avoid involvement in any war, but particularly a land war of attrition in Asia.

U.S. general purpose forces are deployed to the Western Pacific to deter aggression and to reassure our allies, particularly Korea and Japan, of our continuing interest and ability to play a major stabilizing role in the area. These forward-deployed forces would be crucial in a major conflict, serve as a deterrent to regional escalation of local confrontations, and demonstrate our resolve to remain a Pacific power and to continue to fulfill our treaty commitments.

Our forces in Asia have been significantly reduced over the past few years as a result of the lower level of conflict in Southeast Asia and the signing, in Paris on January 27, 1973, of the Agreement on Ending the War and Restoring Peace in Vietnam. If we are to avoid a significant impact on our national security, in my opinion, these forces can be reduced substantially only in response to a significant lessening of tensions and conflict in the area. Without such changes in the political and military situation, U.S. military presence in Asia, at approximately current levels, probably will be required for some time to come.

Two factors remain to be examined on the issue of deployments—the special problems associated with the Indian Ocean and sealift and airlift capabilities.

Soviet military and political activities in the Indian Ocean area clearly demonstrate the U.S.S.R.'s continuing pursuit of long range regional objectives. Before 1968, there was no regular Soviet naval presence in the Indian Ocean. The U.S.S.R. reached an average of 4,300 naval ship-days per year for 1969-70. By 1973, it had more than doubled that presence; but, in large part, this resulted from the salvage and harbor-clearing operation at Bangladesh. The Soviet Union now operates about nine combatants/submarines and 21 naval auxiliaries in the area and has, during periods of tension, clearly demonstrated a capability to surge and reinforce.

Currently the P.R.C. has little or no capability to project military force into the Indian Ocean area.

The United States has important interests in the area, even beyond the self-evident need for access to oil and mineral resources. We must demonstrate to both allies and would-be adversaries U.S. resolve to deter threats to the vital sea lines of communication in the area and to prevent closure of these lines of communication if deterrence fails. Access to the resources of the region is indispensable to the survival of both NATO and Japan. Therefore, we must be in a position to deter activities that are directed against the interests of the United States or its allies.

If we are to accomplish these objectives, and, at the same time, counter politically the growing Soviet presence in the area, we will be required to expand on a more permanent basis our limited force presence. Some expansion of the communications facility on Diego Garcia is important to our interests in the Near East, South Asia, and the Indian Ocean. We have requested funds to expand the present facility to support the additional ships, aircraft, and attached and embarked personnel needed to implement this moderate increase in U.S. force presence.

No discussion of deployment would be complete without some mention of capabilities to resupply and reinforce.

The Soviets obviously have not placed the same emphasis on the development of heavy military transport as the U.S. The U.S. C-5A fleet consists of 70 aircraft, capable of lifting M-60 tanks, and 234 of the smaller C-141s. We plan to increase the effectiveness of the C-141 aircraft by elongating the fuselage by 30 percent to increase its capability for carrying oversized cargo and additional combat troops.

In regard to sealift, the U.S.S.R. operates 1,500 merchant ships totaling about 12.5 million deadweight tons. Of this total, there are some 370 cargo ships and 112 tankers which appear to be equipped and suitable for long-range military sealift. All are less than 20 years old, are capable of speeds in excess of 14 knots, and have the required heavy lift booms and hatch size. As noted last year, Soviet shipbuilding facilities have been expanded so significantly that they retain the option to double their current capability by 1980.

The United States operates only 239 comparable ships of 3.4 million deadweight tons and 162 tankers which meet similar military supply requirements. The U.S. Navy provides amphibious lift for the assault elements of more than one Marine Corps Division/Wing team (MAF) and plans to operate, by 1978, sufficient lift for one and one-third MAFs. I believe that with sufficient over-

flight privileges and base rights, the U.S. has the capability to project the necessary military power to control the early critical stage of a confrontation in those areas of the world where our interests come in conflict with those of the U.S.S.R. We plan to expand our sealift and airlift forces so as to maintain a credible strategic mobility capability. If we fail to provide this capability, then our potential adversaries will know that they can always pick the point of confrontation and concentrate their forces with impunity.

U.S. General Purpose Forces Readiness

There are two factors affecting future U.S. readiness that are particularly worthy of attention at this time.

First, the All Volunteer Force environment will have an increasing impact on our ability to attract and retain that level of expertise required to maintain a satisfactory level of readiness. This impact will be felt most in the technical skill positions. Another facet of this problem is leadership. Unless dedicated young men of good character continue to be attracted to a military career, we soon can expect to possess an Armed Force led by second-raters. The military strength of our Nation rests not on weapons systems alone, but, rather, is embodied in the character, ability, and morale of those entrusted to use them. First-class leaders will be attracted only if the Nation as a whole recognizes the need for such leadership and also actively seeks to create pride in military service.

The second factor adversely impacting on future readiness is the energy problem. We have implemented maximum petroleum, oil and lubrication (POL) conservation measures and drastically curtailed training missions and exercises. These restraints only now are beginning to be reflected in our readiness posture. We can maintain minimum acceptable readiness under present conditions only for the short term. Continued reductions in routine training and major exercises will result in gradual, but serious, cumulative degradation in the long term.

Returning to optimum training levels will be difficult as a result of price increases, even if the fuel becomes available.

U.S., U.S.S.R. Initiatives

The principal U.S. and U.S.S.R. general purpose force initiatives are shown on Chart 1. There are other important ongoing programs, of course, which could be listed for both the U.S. and U.S.S.R., but these are believed to be the most significant. You should note that nine of the Soviet systems listed have progressed to the point of deployment, while only two of the U.S. systems are in that category. Recognizing that legitimate disagreements may exist over which general purpose systems should be included on this chart, the emphasis displayed by these newly developed Soviet systems clearly illustrates the broad scope of U.S.S.R. general purpose force modernization. The list also reflects our limited ability to detect research and development on Soviet general purpose force systems.

The Soviet Union, despite the clear commitment it is making to the major modernization of its strategic offensive forces, has not neglected general purpose force modernization. New tanks, aircraft, and ships are being developed and deployed, apparently as a long-range, sustained, and deliberate "across the board" modernization.

A new tank, a new armored fighting vehicle, a new missile system mounted on an existing armored vehicle, and a new assault helicopter currently are being deployed with Soviet ground forces. The deployment of a new medium tank, a new fighting vehicle (which is air-droppable, amphibious, and equivalent to a light tank), and an armored missile system is consistent with the reliance placed by the U.S.S.R. on armored and mechanized equipment. These new weapon systems will provide evolutionary improvements over similar existing equipment, but they should not change materially the overall effectiveness of the ground forces.

There are numerous indicators that the Soviet Union has begun to increase its emphasis on improving the capabilities of its tactical air forces to engage in ground attack missions, particularly in regard to non-nuclear conflict. Convincing evidence of this trend is supplied by the development of the four Soviet aircraft listed on Chart 1.

The Fencer A, for example, is the first modern Soviet fighter to be developed specifically as a fighter-bomber for the ground attack mission. Although the MIG-23 (Flogger) is capable of serving as an interceptor, it also has an important ground-attack capability. The SU-20 is an improved version of the Fitter B, also with an improved ground attack capability. The V/STOL fighter is expected to serve as the fixed-wing tactical aircraft for deployment in the new Soviet aircraft carrier. In contrast to the evolutionary improvements of the ground

A U.S. soldier sights-in a Dragon missile launcher. The Dragon, fired from an expendable recoilless launcher, is tracked optically, and is guided to the target automatically by electronic impulses transmitted via a wire link. It is an antitank weapon.

forces, these ongoing tactical air initiatives, when fully implemented, will add significant new capabilities to the Soviet Frontal and Naval Aviation forces.

The deployment of the first Kuril class V/STOL carrier will add a completely new dimension to Soviet naval capabilities. Although not comparable to the multi-purpose U.S. carriers with their varied complement of sophisticated aircraft, this class of ships will free U.S.S.R. naval forces from their total dependence on shore-based aircraft. With complementary Soviet programs in underway replenishment ships, command and control cruisers, and amphibious ships, this class of ships will further strengthen the increasing capability of Soviet forces to operate worldwide. The other three naval initiatives listed for the U.S.S.R. also will strengthen this same capability. The Kara class cruiser and the Krivak class destroyers are heavily armed ships with impressive arrays of antiship and antiair missiles, as well as antisubmarine sensors and weapons. The Amga class ships will provide missile support for all classes of ballistic missile submarines, thus potentially improving the sustained effectiveness of these submarines when deployed away from the Soviet Union. It is obvious that ships of this size and sophistication are not needed by a navy structured merely for coastal defense.

Turning to the ongoing U.S. initiatives, the emphasis has been placed on major new programs designed to influence our military capabilities in the late 1970s and 1980s. In regard to the U.S. ground forces initiatives the Army "big five" weapons systems have been designed to provide major qualitative improvements in combat equipment for use by ground forces that may be on a battlefield in the 1980s. Superior equipment is indispensable for our ground forces because we plan for them to exploit technology rather than depend upon abundant manpower. The Dragon and TOW (tube-launched, optically-tracked, wire command link guided missile) constitute a significantly improved family of antitank weapons to provide protection to ground force units. TOW currently is being deployed and Dragon will be deployed in the near future with our Army ground forces. A request for funds to provide this same capability to Marine Corps ground forces is contained in the FY 1975 Defense Budget. The last item, the CH-53E, is an improved prototype version of the CH-53D helicopter currently deployed in Marine Corps units. It is expected to have the capability to lift over 90 percent of Marine division combat equipment and Marine tactical aircraft without disassembly. No production decisions have been made on any of these initiatives except for the Dragon and TOW antitank weapons.

SIGNIFICANT US & USSR INITIATIVES
GENERAL PURPOSE FORCES SYSTEMS

US		USSR
	GROUND FORCES	
ARMY "BIG FIVE": AAH & UTTAS		• NEW MEDIUM TANK
XM-1 TANK & MICV		• NEW FIGHTING VEHICLE
SAM-D		• BRDM- MISSILE SYSTEM
• DRAGON & TOW ANTITANK WEAPONS		• HIND A HELO
CH-53E HVY ASSAULT HELO		
	TACTICAL AIR FORCES	
A-10 CLOSE AIR SUPPORT A C		FENCER A VGW FIGHTER BOMBER
F-15 (EAGLE) FIGHTER		• MIG-23 (FLOGGER) FIGHTER
EF-111A		• SU-20 GROUND SUPPORT A C
• F-14 (TOMCAT) FIGHTER		V STOL FIGHTER
	NAVAL FORCES	
688 CLASS ATTACK SUB		KURIL CLASS CARRIER
LHA AMPHIB ASSAULT SHIP		• KARA CLASS CRUISER
SEA CONTROL SHIP		• KRIVAK CLASS DESTROYER
PATROL FRIGATE (HARPOON EQUIPPED)		• AMGA CLASS MISSILE SUPPORT SHIP

• CURRENTLY BEING DEPLOYED; STILL IN PRODUCTION

CHART NO 1

The first three initiatives listed under tactical air forces are ongoing Air Force programs. The A-10 is an attack aircraft specifically designed and optimized for the close air support mission—particularly in the role of defeating enemy armor and providing accurate delivery of ordnance in proximity to friendly ground forces. A production decision on this aircraft is being withheld until a fly-off has been completed between the A-10 and the in-service A-7 aircraft. The F-15 Eagle is an advanced tactical fighter being developed for the air superiority mission; but it also is expected to have an air-to-ground capability, with accuracies at least as good as those of the A-7D attack aircraft. As an air superiority fighter, it should outperform any known Soviet fighter aircraft now in service or projected for service in the 1980s. The EF-111A is being developed as a prototype by installing the latest jamming subsystem in the sophisticated F-111A fighter, to provide an important qualitative improvement in the Air Force's manned tactical electronic countermeasures (ECM) capability.

The Navy's F-14 Tomcat is the only tactical air forces initiative listed which is currently operational. Designed for both fleet air and fleet area defense, the F-14 should—like the F-15—be superior to any Soviet fighter aircraft through the 1980s. The F-14 also has an excellent air-to-ground attack capability.

None of the U.S. ships listed under the Naval Forces initiatives is currently operational; however, the first 688-class nuclear-powered attack submarine (SSN) and the first LHA amphibious assault ship should be delivered to the fleet in FY 1975. The 688-class SSNs are expected to be generally qualitatively superior to the best Soviet nuclear-powered attack submarines. With the completion of the five ships in the LHA program in FY 1977, the amphibious forces of the Navy should attain the capability of lifting the helicopter and surface as-

GROUND FORCES
MAJOR WEAPONS AND EQUIPMENT
(RATIOS)

	USSR/US	US/PRC
MED TANKS	4:1	1:1
APC & FIGHTING VEH.	3:2	6:1
ARTILLERY	3:1	1:3
HEAVY MORTARS	2:1	1:2
ANTITANK WEAPONS	•	•
HELICOPTERS	1:5	20:1

•SEE TEXT

CHART NO 2

TACTICAL AIRCRAFT

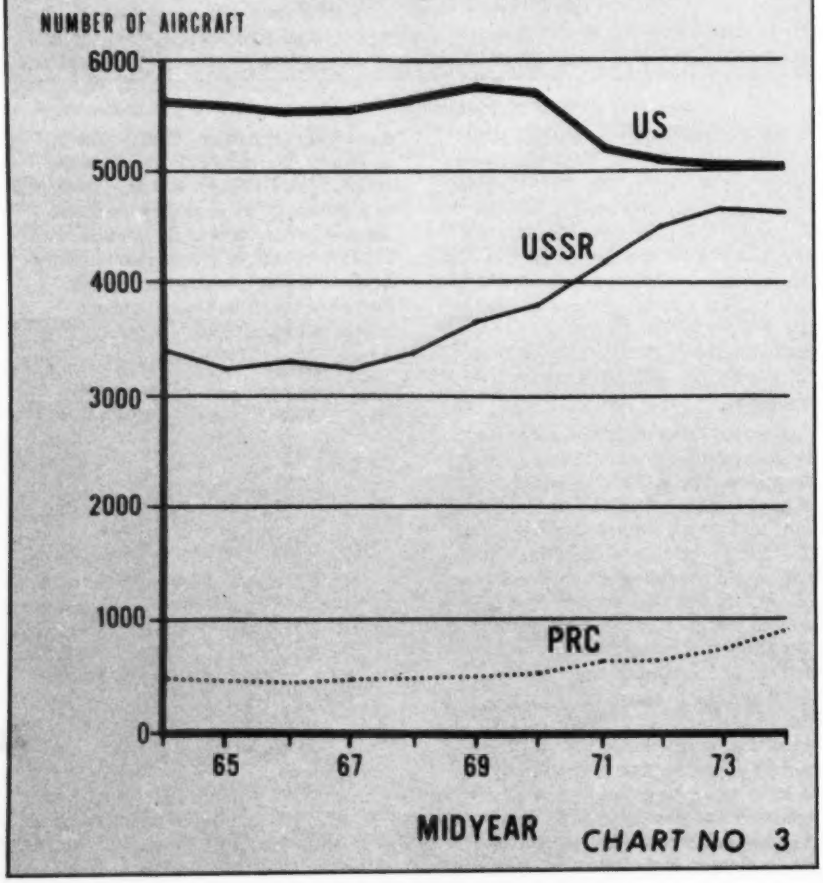


CHART NO 3

sault elements of one and one-third Marine amphibious forces and achieve this in modern 20-knot ships.

The last two ships listed, the sea control ship and the Harpoon missile-equipped patrol frigate, are to be key elements in providing sea-based air, antiair, and antisubmarine capabilities to small task groups, underway replenishment groups, amphibious assault groups, and convoys that do not have aircraft carriers in company. Both of these new ships will be austerely, but adequately, designed to fulfill this important mission of protecting our sea lines of communication in lesser-air-threat areas, freeing our carriers to employ their capabilities in protecting our sea lines of communication in high-air-threat areas.

Ground Forces

Chart 2 provides a comparison of U.S., U.S.S.R., and P.R.C. inventories of selected major ground force weapons and equipment. Accurate comparisons in this area are difficult because our estimates of Soviet and P.R.C. ground force weapons inventories, of necessity, are based to a large extent on evaluations of their force requirements, division structure and tables of organization and equipment. Also, there are always numerous problems of definition and classification involved in the categorization of weapons and equipment.

Soviet doctrine places great emphasis on the massive use of tanks, armored vehicles, and heavy firepower to win the land battle. Associated with this doctrine, the U.S.S.R. tends to arm its ground units with large quantities of weapons and equipment, which we have always considered reliable and serviceable, but generally of slightly lower quality than comparable U.S. materiel.

The U.S. has never attempted to match the U.S.S.R. in quantities of ground force personnel or materiel, but we have taken pride in our superior weapons systems and equipment. The Soviet Union, learning lessons from Vietnam, has continued a very deliberate and effective program, both to modernize its ground force equipment and to place large numbers of sophisticated weapons in its ground force units. The U.S., because of its involvement in Vietnam, has been required, in recent years, to expend most of its resources maintaining and procur-

ing current models of weapons and equipment.

U.S. technology is still, by and large, superior; but this new Soviet modernization trend, combined with its already massive quantitative superiority, makes it imperative that we continue to modernize our ground forces equipment and continue to pursue those potentially rewarding new areas of technology that might become most useful in the years ahead.

A substantial portion of the Soviet tank force consists of the effective T-62 medium tank, recently employed in combat by Syrian and Egyptian forces in the Middle East. Series production has begun on a new medium tank, the M-1970. The remainder of the Soviet tank force consists of older T-54/55 medium tanks. The P.R.C. is continuing to produce the type 59 tank—a copy of the Soviet T-54.

The U.S. medium tank inventory is less than one-quarter of our estimate of the total U.S.S.R. inventory, but about the same as the inventory of the P.R.C. Our main battle tank, the M-60, is comparable to the Soviet T-62. The M-60 series (M-60/A1/A2) now constitutes slightly over half of the U.S. Army inventory. M-60A1s will be delivered to the Marine Corps in June of this year. Over the next three years M-60A1s will replace all of the old M-48s in both active and reserve Marine Corps units. An improved version of the M-60A1, to be designated the M-60A3, will have a laser range finder and other improvements over the M-60A1. Also, the 152 mm gun/Shillelagh missile launcher version of the M-60, the M-60A2, will be fielded in Europe in the near future. For the 1980s, the Army is developing a completely new tank, the XM-1. Prototypes to be developed by two competing contractors will be tested (beginning in 1976) before a production decision is made.

The newest Soviet fighting vehicle is the new light amphibious vehicle, already noted. This relatively small (less than 10 tons) armored vehicle is probably air-droppable and we believe that production is continuing.,

The P.R.C. inventory of armored personnel carriers (APCs) and fighting vehicles is still small in comparison with the U.S. and U.S.S.R. The Chinese have been producing their own APCs and light tanks for several years. The design of this equipment, however, while similar to older Soviet tanks and APCs, does reflect some improvements. These vehicles, like the medium tanks, continue to be distributed to operational units at a moderate rate.

The principal U.S. APC, the M-113, was first introduced into the Army in 1959. While this vehicle provides adequate transportation and protection to the infantry squad, unlike the Soviet BMP, it cannot be classified as a fighting vehicle. We, therefore, believe that the BMP is superior to the M-113. Initial testing has begun, however, on a new and improved mechanized infantry combat vehicle (MICV). This new vehicle is programmed to be a partial replacement for the M-113s in Europe-oriented mechanized battalions. It will have greatly improved firepower, mobility, and troop protection characteristics, as compared with the M-113 series.

The principal amphibious landing vehicle in the U.S. Marine Corps is now the LVTP-7. This vehicle is lighter, faster, and more maneuverable than the LVTP-5, which it has replaced recently in all combat units.

Both the U.S.S.R. and the P.R.C., with their much larger ground forces, have about three times the number of U.S. artillery pieces and heavy mortars. Although the P.R.C. has increased its production of artillery in recent years, most of its current inventory still consists of U.S.S.R. World War II types. Most of the U.S.S.R. and P.R.C. tube artillery pieces have a greater range capability than their US. counterparts, but new U.S. ammunition developments are underway which should close this range gap in the 1970s. Also, our extensive use of self-propelled artillery gives us the advantage in mobility.

Because of the wide variety of antitank weapons—ranging from the U.S. one-shot, throw-away 66 mm light antitank weapon (LAW) and the U.S.S.R. shoulder-fired reloadable 85 mm grenade launcher (RPG-7), through recoilless rifles and guns, field guns, and guided missiles—I have been unable to find a simple quantitative measure with which to compare the U.S., U.S.S.R., and P.R.C. inventories of these weapons. By and large, I would judge that the U.S. has an overall qualitative advantage over the U.S.S.R. in antitank weapons, due in large part to our new ground forces family of antitank guided missiles—TOW, Dragon, and Shillelagh. We believe that these weapons are clearly superior to the Soviet Snapper, Sagger, and Swatter antitank guided missiles. TOW is both ground/vehicle-mounted and helicopter-mounted; Dragon is man-portable; and Shillelagh is tube-fired from the M-60A2 tank and the M-551 reconnaissance vehicle. The Soviet antitank missiles are generally ground/vehicle-mounted. Both the U.S. and the U.S.S.R. have large numbers of the smaller man-portable antitank weapons. The P.R.C. has thousands of older antitank weapons, mostly of World War II types. In this area, the P.R.C. is distinctly inferior to both the U.S. and the U.S.S.R.

Turning to the final item on Chart 2, the U.S. still has far more helicopters dedicated to the ground combat role than the U.S.S.R. and the P.R.C. combined. Although, we believe U.S. helicopters also are superior in design, the U.S.S.R. is producing a new assault helicopter, the Hind-A. Deployment of this versatile helicopter will increase significantly the heliborne-assault capability of Soviet ground forces. Other Soviet helicopters are also in production, and we can expect a steady increase in this force over the years.

There are two major new U.S. Army programs, already mentioned, which should improve substantially the U.S. heliborne and helicopter assault capabilities in the 1980s. These are the UTTAS squad assault helicopter and the advanced attack helicopter (AAH). The UTTAS, which is now in the engineering development stage, will be able to carry, even under adverse climatic conditions, an entire Army squad in addition to the crew. It will replace eventually the "Huey" as the mainstay of the Army assault helicopter force. The AAH helicopter will have greatly improved performance and survivability characteristics over the AH-1 Cobra. It will have also an operational capability at night and in adverse weather. In addition, both the Army and the Marine Corps are developing improved versions of the AH-1 Cobra gunship, which will be capable of firing the TOW missile.

Tactical Air Forces

Shown on Chart 3 are the U.S., U.S.S.R., and P.R.C. tactical aircraft inventories, including fighter, attack, light bomber, and reconnaissance aircraft.

The U.S. figures include all such aircraft, both active and reserve, in the Air Force, Navy, and Marine Corps, but exclude those used for training (about 850 in 1974) and those assigned to and discussed previously under continental air defense (about 500 in 1974).

The Soviet figures similarly exclude tactical-type aircraft used for training (about 2,000 in 1974) and fighter aircraft assigned to the PVO Strany (Air Defense of the Nation) forces (about 2,500 in 1974). Some of these aircraft could be diverted to the tactical role.

In the P.R.C., most fighter aircraft are assigned a strategic home defense mission (over 3,000 in 1974). The P.R.C. figures, therefore, include only the tactical aircraft (fighters and light bombers) in the active inventory of the air force and naval air force. On the other hand, home defense interceptor units participate in ground support training exercises; and it is believed that many of these strategic home defense aircraft would be utilized, whenever necessary, in a tactical role. No reserve aircraft figures are available for the P.R.C.

The U.S. tactical aircraft inventory will decline slightly over the next few years. The substantial modernization taking place during the next five-year period will partially offset the effect of this decline in total inventory, but the rate of deployment of the new aircraft, e.g., F-14, F-15, and A-10, will not quite equal the attrition and replacement of the older aircraft. As the Secretary of Defense has indicated, the increasing costs associated with sophisticated high-performance aircraft are such that programmed modernization is not as rapid as desired.

In the Air Force, the major changes in the tactical aircraft programmed inventory will result from the introduction of the F-15 Eagle air superiority fighter and the A-10 close air support aircraft. (The A-10 aircraft is an important part of the Air Force program; however, no production decision will be made until after it completes a fly-off with the A-7 and other tests.)

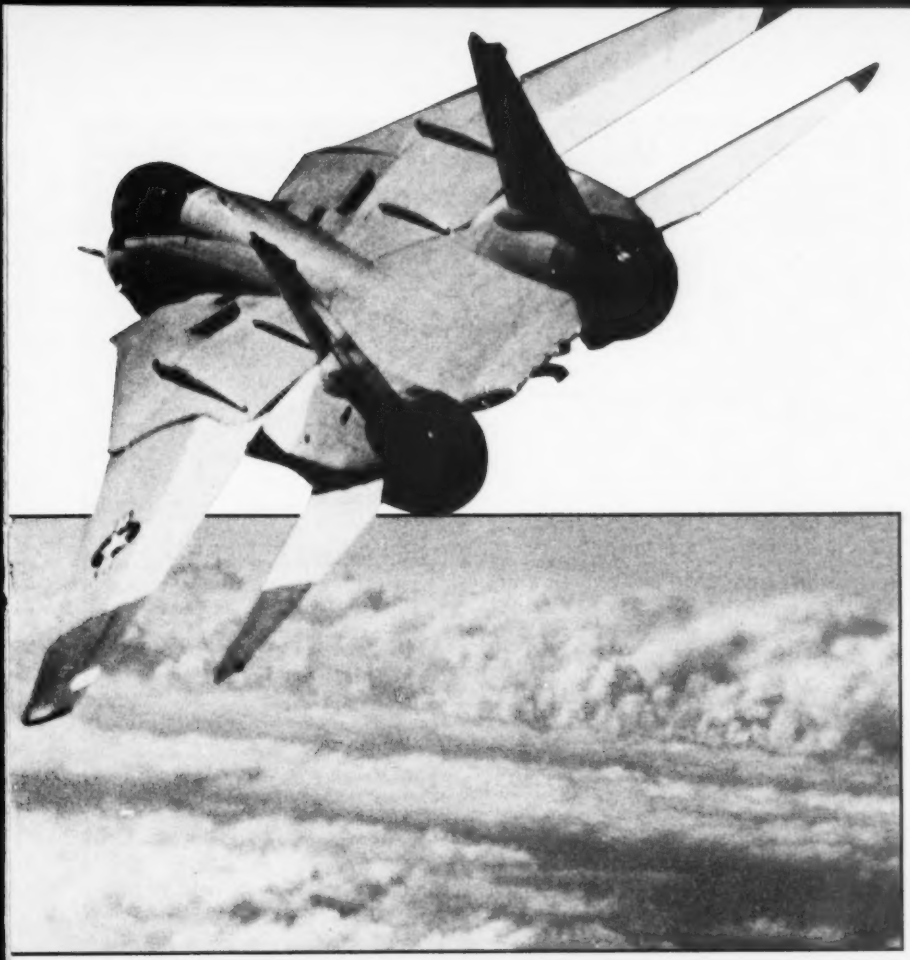
The F-15 Eagle slowly will replace the F-4E as the primary air superiority fighter for the Air Force; and the A-10, under the current program, will phase into the active force beginning FY 1977. The first squadron of F-15s is programmed to be operational in early FY 1976. Some A-7s and F-4s now in the active forces will be transferred to the Reserve forces to continue this essential part of our total force modernization program.

The criteria for selecting the F-15 Eagle design features were based on providing an air-to-air combat capability superior to that of threat aircraft projected for the 1980s; however, the high thrust-to-weight ratio and low wing loading also provide a capability to carry large external loads. The "hard points" built into the wings and fuselage to carry fuel tanks are compatible with multiple ejector racks for conventional weapons. This aircraft has the sensor, computational and display systems required for various manual and semi-automatic all-weather ground attack missions. Therefore, the F-15 Eagle also should have an excellent ground-attack capability.

The A-10, in contrast to the F-15, has been designed primarily for the close support mission. It is a much less sophisticated and less expensive aircraft than the F-15. The short-take-off-and-landing (STOL) capability of the A-10 will permit it to use short battlefield area airstrips; and its large fuel capacity will provide long loiter time, both of which are important characteristics for a close air support aircraft. In addition to its internal 30 mm Gatling gun, the A-10 has 11 external pylons to carry a large mixed ordnance payload. Its survivability under high-intensity battlefield conditions is greatly enhanced by armor installed around the cockpit and other critical components, including: redundant structural components, backup flight controls, and self-sealing foam-filled fuel tanks. The simplicity designed into the A-10 should allow it to be serviced and operated from bases with limited facilities close to the forward edge of the battle area.

In the active Navy, the new F-14A Tomcat is scheduled to replace about half the F-4s. It also will replace four squadrons of F-4s in the active Marine Corps. A-7Es will replace the older versions of the A-7 and A-4 in the active

A Navy F-14 Tomcat multi-mission fighter aircraft flies a simulated air combat mission with an F-4 Phantom II (right). Below, a flight of People's Republic of China MIG-17s fly a mission over the P.R.C. mainland. At lower right is the Soviet T-54 medium tank, a mainstay of the Soviet ground forces. The P.R.C. produces a type 59 tank, a copy of the Soviet T-54.



Navy in a primary light attack role; while in the active Marine Corps, this role will continue to be assigned to the A-4 (the improved version, A-4M) and the new AV-8A Harrier. The V/STOL capable Harrier has exceeded expectations in its initial operational service.

The F-14A Tomcat is designed to operate from Midway and larger class carriers, as well as from Marine Corps fields ashore. Initial carrier suitability trials were conducted successfully in June 1972. The first two active Navy squadrons are now operational, and the first active Marine Corps F-14A Tomcat squadron will be operational prior to the end of FY 1975.

One of the most important features of the F-14A Tomcat is its AWG-9 fire control system and the long-range, all-weather, air-to-air Phoenix missile. This weapons system is capable of simultaneously engaging multiple supersonic targets at ranges out to 60 nautical miles (nm) and at altitudes up to 80,000 feet. Intensive testing of this newly operational missile has confirmed its outstanding effectiveness.

The attack capabilities of the Navy A-6 and A-7E and the Marine Corps A-4M aircraft should be improved by new systems under development. The target acquisition and attack multisensor system (TRAMS) will be installed in the A-6 and the A-7E, and the angle rate bombing system (ARBS) will be retrofitted into the A-4M.

The experience gained from Vietnam and again in the recent Middle East conflict has reemphasized the importance of effective electronic warfare systems operating in the modern surface-to-air missile (SAM) environment. Continued modernization of our electronic countermeasures (ECM) and electronic support measures (ESM) is essential to our general purpose program. All Military Services are engaged in this effort. Under tactical air forces programs for FY 1975, for example, the Air Force is developing the EF-111A to improve its manned ECM capability. Funds also are being requested to initiate prototype efforts to expand the ECM capabilities of the Navy EA-6B. Other Service ECM programs, both in research and development (R&D) and in new procurement, also are being pursued.

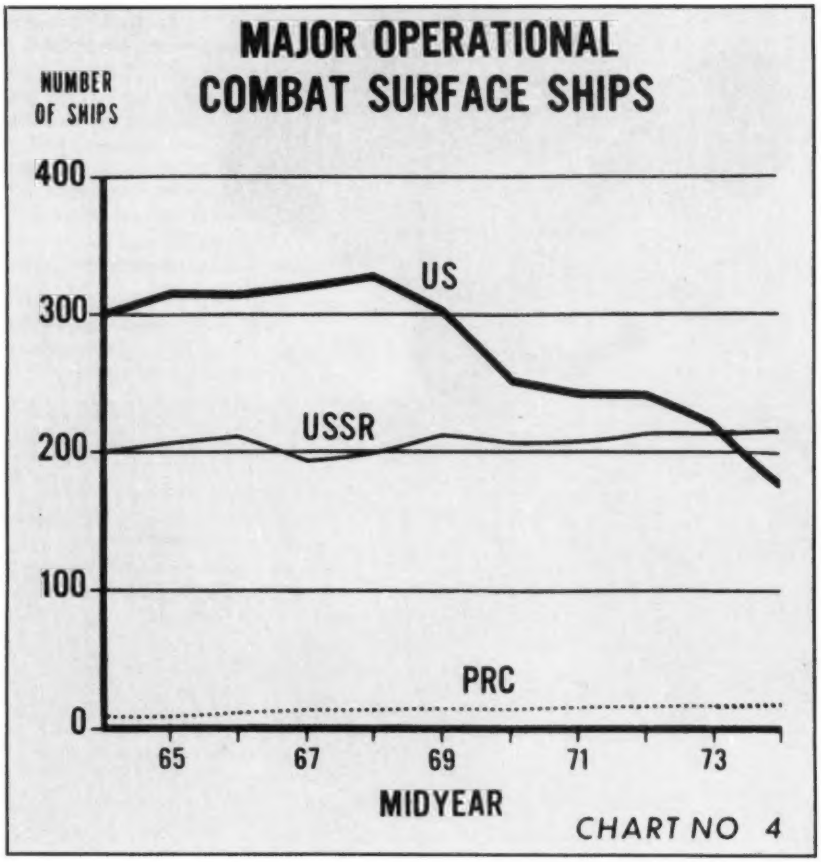
In the area of command and control,

the airborne warning and control system (AWACS), already discussed under its strategic defensive role, also will have a major tactical mission and should greatly increase the effectiveness of all tactical aircraft under its control.

The primary additions to the Soviet tactical air forces inventory over the next five years are expected to be the MIG-23 (Flogger), Fencer A (a new VGW fighter-bomber), SU-20 (improved Fitter B), and MIG-25 (Foxbat). All of these aircraft except the Foxbat, a high-altitude interceptor, have an important ground attack capability. This increased Soviet emphasis on new tactical aircraft has required an upward reevaluation of our total future inventory projections for the next few years.

In contrast to our underestimation of the future aircraft inventory of the Soviet tactical air forces, our last year's estimate for the growth rate of the P.R.C. tactical air forces was too high. The P.R.C. tactical aircraft inventory still is expected to continue its growth, but not as rapidly as projected last year.

As already indicated, the Soviet Union appears to be making a determined effort to erase the long-held advantage in the ground attack role held by U.S. tactical air forces. On the other hand, the U.S.S.R. traditionally has emphasized the air superiority capabilities in its tactical aircraft and has gained thereby a clear quantitative advantage and some qualitative advantages in this role. With the deployment of new U.S. and U.S.S.R. aircraft, these differences will tend to narrow; however, I believe U.S. tactical air forces will be superior in both roles in the 1980s if we actively pursue the tactical aircraft modernization programs already underway—particularly the F-14A Tomcat and the F-15 Eagle.



Naval Forces

Shown on Chart 4 is a comparison of the numbers of U.S., U.S.S.R., and P.R.C. major operational combat surface ships. The Soviet force at mid-1974 is expected to consist of approximately two guided missile helicopter ships, 17 missile cruisers, 13 gun cruisers, 43 missile destroyers, 36 gun destroyers, and 104 escorts, for a total of about 215 ships. It is very likely that this force will decrease slightly as the retirement and transfer of older surface ships exceed the deliveries of the more sophisticated and generally heavier new ships.

A substantial Soviet naval modernization program is underway. As already indicated, several new classes of combat surface ships are being constructed in the Soviet Union. Other older classes are undergoing major conversions involving the addition of new missiles, antisubmarine systems, and communications equipment.

The largest Soviet surface combatant ever constructed is the recently launched Kuril class aircraft carrier. The ship is over 900 feet in length and should displace 30-40,000 tons when its fitting-out period is completed. The deck configuration and the lack of catapults or arresting gear indicate that this ship apparently is designed to operate V/STOL aircraft and helicopters, rather than more conventional fighter and attack aircraft. It should be capable of carrying 25 V/STOL aircraft or 36 helicopters. It is believed, however, that a mixture of the new V/STOL aircraft, mentioned under new initiatives, and Hormone helicopters is the most likely complement. The first ship of this class, with its complement of V/STOL aircraft and helicopters, could join the fleet in late 1975. A second carrier is under construction.

Probably the most heavily armed class of ships in the world for its displacement (about 9,000 tons) also is being constructed by the Soviet Union. Two of these Kara class guided missile light cruisers are already operational and more are expected to joint the fleet in the next few years. The Kara class is the first ship in any navy to be armed with three separate missile systems.

As a result of the high ship construction rates during the 1950s, the Soviet Union—like the United States—faces a growing problem in the 1970s

of obsolecence among its gun destroyers and escorts. A substantial portion of these old ships, however, has been, is, or will be modernized to prolong its effective life. The best candidate to replace the older destroyers still is believed to be the Krivak class.

As shown on Chart 4, the P.R.C. major surface ship force is quite small, but is growing slowly. A substantial portion of the force is composed of Soviet-designed destroyers and destroyer escorts about 20 years old. Several Chinese-designed missile-equipped surface combatants have been built in the past 10 years and more are under construction.

The largest ships in the P.R.C. fleet are the new guided missile destroyers, the first of which became operational in late 1971. Each ship carries Styx-type missiles, antiaircraft guns, and antisubmarine weapons. More of these ships are expected to be operational by mid-1974, and others are under construction, or fitting out. It appears, however, that major surface combatants are not receiving the same priorities in the P.R.C. Navy that was evident only a few years ago.

In contrast to the slow progress in the construction of major combat surface ships, the P.R.C. is expanding rapidly its guided missile boat force. By mid-1974, it will have over 100 of these small surface combatants; and this number is expected to increase over the next few years. All of these boats are armed with a Chinese version of the highly effective Soviet-designed Styx surface-to-surface missile. This missile boat force significantly enhances the P.R.C. Navy's capability to engage in coastal operations.

The total number of U.S. major combat surface ships (174 for FY 1974) has dropped to the lowest level since prior to the Korean War. This declining trend, however, is being reversed; and for the next few years, new ships are programmed to be delivered faster than the old ships are retired from the active fleet.

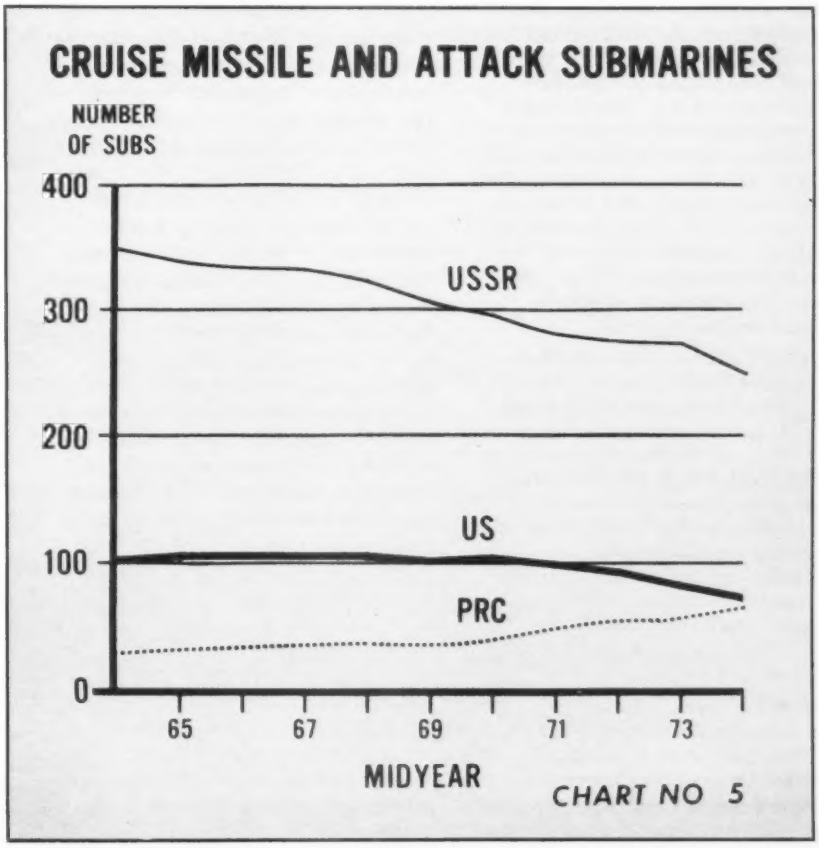
During an extended conflict involving the Soviet Union, protection of our sea lines of communication would be a matter of vital importance to our Nation. The last two new ships—the patrol frigate and sea control ship—are essential components of our plan to improve the U.S. capabilities for this complex mission in areas of lesser threat. More sophisticated ships (e.g., aircraft carriers, destroyer, guided missile frigates) still will be required for potentially more intense areas of conflict, but these two new classes of austere ships with their V/STOL aircraft, helicopters, missiles, and ASW systems should be fully capable of providing adequate antiair and antisubmarine protection for small task groups and convoys in less intense areas of conflict.

The Harpoon missile will be the primary surface-to-surface armament for the patrol frigate. This versatile cruise missile weighs about 1,400 pounds (1,100 pounds for the air-launched versions) and is capable of carrying either a 500-pound nuclear or conventional warhead about 60 nm. The Harpoon already has been flight tested about 30 times with considerable success. It is expected to be operational, both in a surface-to-surface and an air-to-surface version.

The U.S., U.S.S.R., and P.R.C. cruise missile and attack submarines are projected through mid-1974 on Chart 5.

The Soviet Union has the largest submarine force in the world. This will continue to be true throughout the next five years. The total number of submarines, however, is expected to decline throughout this period, as the older diesel submarines are phased out faster than the new, more sophisticated submarines are delivered to the fleet. The primary uncertainty relates to the rate of new construction.

Soviet cruise missile submarines have a primary mission against naval surface ships, and a secondary mission (using torpedoes and mines) against other submarines. The Charlie class, which has been operational since 1968, is the only operational submarine in any navy capable of launching cruise missiles while submerged.



Over one-half of Soviet submarines are still diesel-powered. No new diesel-powered ballistic or cruise missile submarines have been constructed in recent years, but a new diesel-powered attack submarine is now entering the submarine force. It is believed to satisfy Soviet requirements for a relatively inexpensive non-nuclear replacement for the workhorse submarine, Foxtrot.

Except for one single modern-design, long-range submarine, the P.R.C. submarine force consists primarily of Soviet-designed, but Chinese-built, medium-range Whiskey and Romeo class submarines. Both of these Soviet classes were considered to be excellent submarines at one time, but they incorporate features which now are considered obsolescent by U.S. and U.S.S.R. standards. The P.R.C. may have produced a new version of the Romeo class. If so, series production of this submarine or possibly even a further-improved version could begin in the near future.

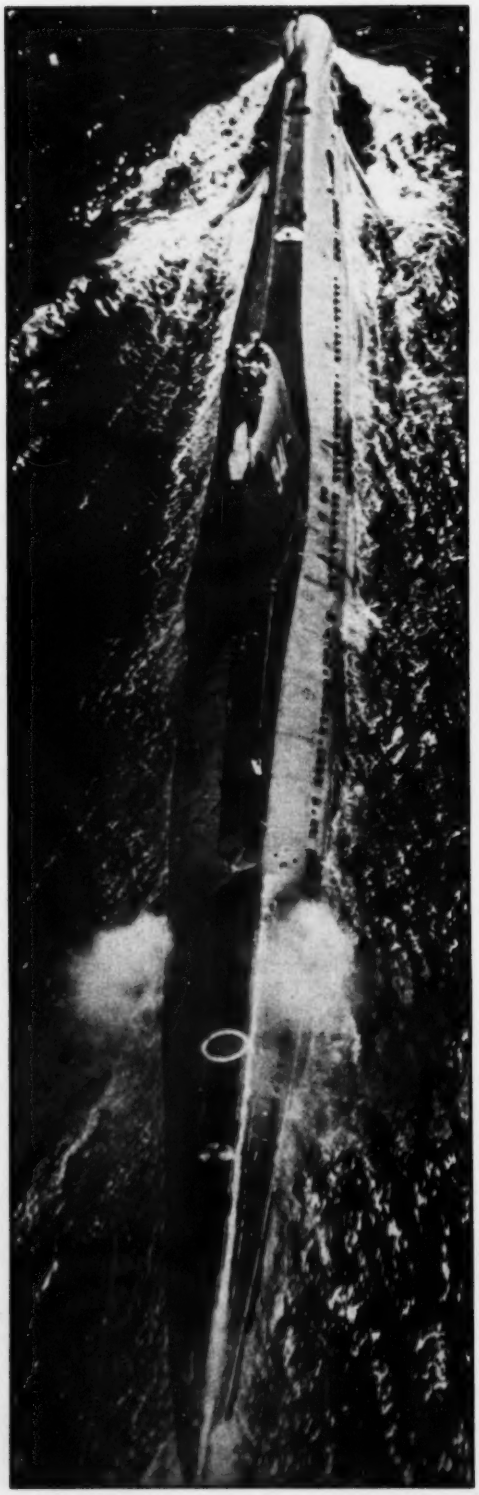
After a long period of decline, the total number of U.S. attack submarines will begin to rise again in 1975, as the first 688-class nuclear-powered submarine enters the fleet. The Congress already has approved the construction of 23 of these new submarines through FY 1974, and production is programmed to continue at a rate of two to three per year through 1979. We believe that the 688-class is superior to the best of the U.S.S.R. attack submarines (i.e., the Victor-class) because of its greater quietness and better sonars.

The U.S. does not have any submarine-launched cruise missiles (SLCMs) at this time, but research and development has been initiated on an encapsulated version of the Harpoon antiship missile, which will be deployed aboard future submarines of the 688-class. Serious consideration is being given to retrofitting the Harpoon weapon system in 688-class submarines already under construction. Research also is being carried out on a long-range SLCM (1,200-2,000 nm range), which may have a tactical version.

The P.R.C. naval forces will continue to be much smaller and much less capable than those of the U.S. and the U.S.S.R. Although the Chinese Navy will have a greater capability to project its power beyond the China Seas, it will remain primarily a defensive force at least throughout the rest of this decade.

In evaluating the relative strength of the U.S. and U.S.S.R. general purpose Navy forces, it is always important, as I have indicated in previous years, to bear in mind their differing primary objectives. Because of our great dependence on overseas sources of raw materials and because of our strong ties to overseas allies, we must insure our access to the seas in both peace and war. Consequently, U.S. Navy general purpose forces have been designed primarily to control the sea lines of communication and to project our military power across the oceans.

The Soviet Union, in contrast, is less dependent on overseas sources of supply and is less involved with overseas allies. Its long-term objective apparently is to weaken our ties with our overseas allies and prevent us from coming to their assistance in time of war. Accordingly, in the past, the Soviet Navy general purpose forces have been designed primarily as a defensive and spoiling force to disrupt our sea lines of communication and to obstruct the projection of our military power across the oceans. Today, a new and more offensively oriented Soviet naval posture is developing. I have pointed out for the past few years that the Soviet Navy is continuing to expand its global reach. The new carriers will add a new capability, which will help to free selected major combat surface ships from total dependence on shore-based aircraft for tactical air support; new and modernized heavily armed carriers and destroyers will strengthen the already formidable combat capabilities of the surface fleets; and new underway replenishment ships will allow the fleets much more freedom of movement in distant ocean areas.



A Soviet F-class submarine surfaces (right) during operations at sea. At far right, the U.S. Navy's oldest operational hydrofoil, High Point, launches a Harpoon missile during test-firing. The Harpoon is an antiship missile.

Increased attention to the naval infantry, and modernization of the amphibious lift capability—particularly with the new potential for sea-based tactical air support—also indicate new Soviet interest in projecting its offensive power from the sea.

I do not believe that even with these new ships and added capabilities, the Soviet Union can match U.S. capabilities to project military power from the sea. As I have reported to you for the past few years, however, the increasing Soviet threat to our sea lines of communication from the large and increasingly sophisticated submarine force is of considerable concern. In short, the Soviet naval capabilities are becoming more formidable every year, and we must take note of the increasing readiness with which Soviet naval forces are being deployed to areas of serious international tension. An increase in the size of the fleet, together with vigorous modernization, is necessary in order to insure both the success of our forward deployment strategy and our control of the seas along essential sea lines of communication.

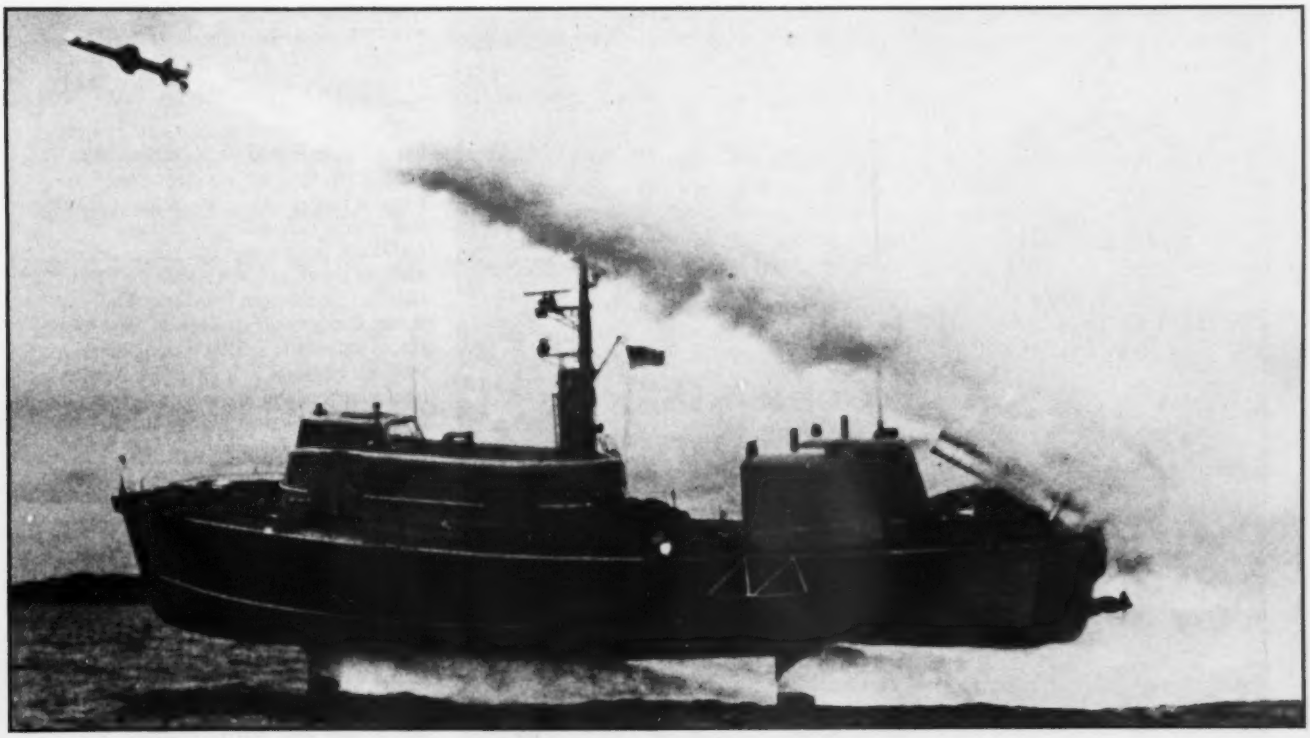
Theater Nuclear Forces

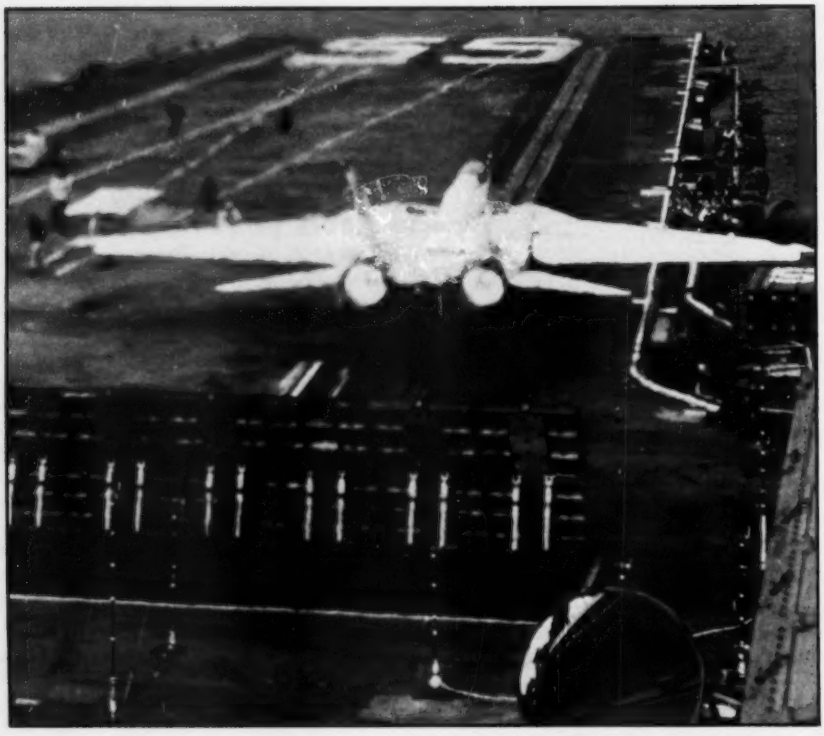
Our theater nuclear capability is one of the military tools indispensable to successful deterrence and defense. Before discussing specific theater nuclear forces, however, a brief note as to the objectives underlying their deployment seems appropriate. The European theater will be used as an example of the capabilities throughout our general purpose forces.

NATO's doctrine of flexible response, to which the United States subscribes, requires a capability to confront aggression at any level of action across the spectrum of warfare. Should it appear that the aggression cannot be contained and the situation restored by direct conventional defense, the strategy calls for a carefully controlled, deliberate raising of the scope and intensity of combat. As the threat of a NATO nuclear response becomes progressively more imminent, the costs and risks become disproportionate to the aggressor's objectives.

One escalatory step envisioned by the Alliance is the selective use of tactical nuclear weapons. These weapons have certain inherent advantages in the process of deterrence and control of escalation. First, because of their limited range and yield, they are not a direct threat to the survival of the U.S.S.R. as a nation. Second, their accuracy allows targeting of military forces with limited collateral damage. Third, many of these weapons are primarily defensive in nature. Barrier plans, demolitions, and SAMs are tools of a defender, not an aggressor. Fourth, the inherent mobility and dispersal capability of these weapons enhance their survivability and reduce the temptation to attempt to destroy them by preemption. A potential adversary is confronted with possible nuclear capability in every artillery position across the entire front. This spread of common delivery means presents the enemy with an extremely difficult targeting problem. Finally, these weapons give the allied command an ability to strike a significant blow to massed enemy forces.

The conventional balance in Europe is such that in the event Warsaw Pact



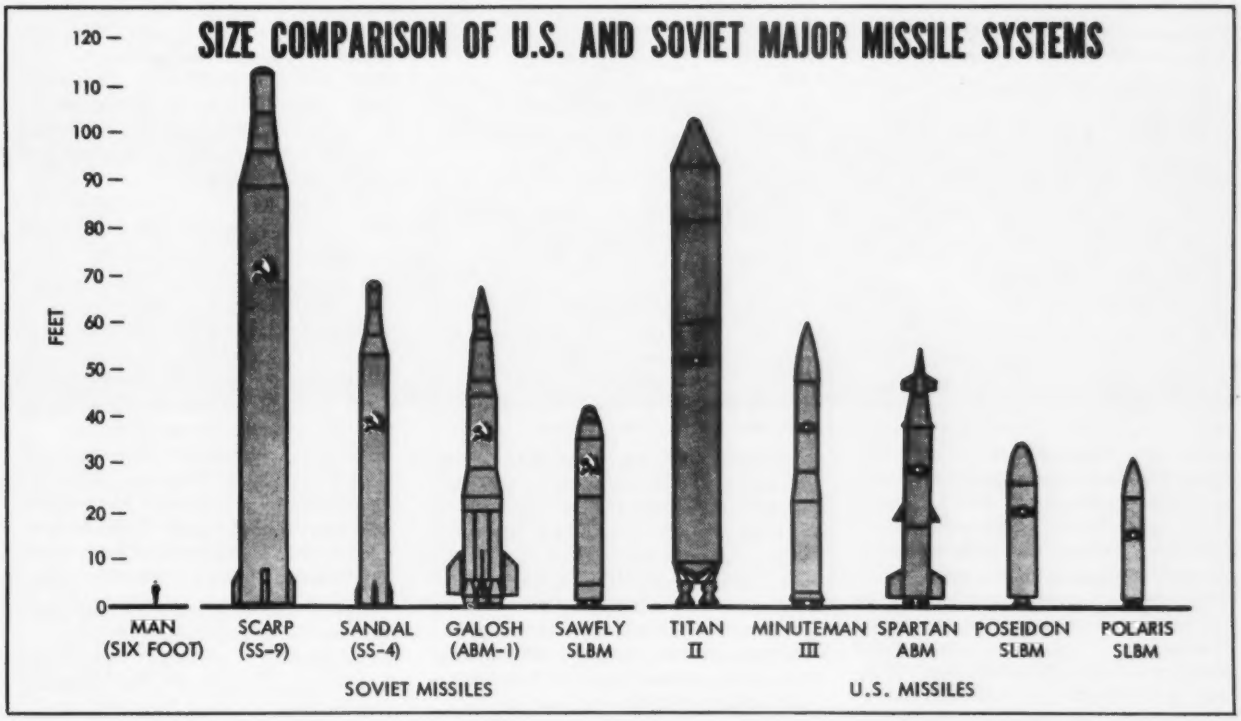


forces are able to mass and apply armored pressure to any given point in the defense line, NATO ability to defend with conventional forces is greatly weakened. The ability to apply limited nuclear firepower under all-weather conditions to the armored point of the thrust greatly contributes to theater deterrence and is an intermediate option between conventional warfare and general nuclear war. These theater nuclear weapons are a quick response to counter the difficult-to-acquire, fleeting, regenerative battlefield targets, the destruction of which is believed essential to a successful defense of Western Europe or any other area of the world where our vital interests are at stake.

In addition to the strategic nuclear forces discussed earlier, both the U.S. and the U.S.S.R. have large theater nuclear-capable forces. In this regard, the P.R.C. is still far behind the U.S. and the U.S.S.R., both qualitatively and quantitatively. While the U.S. and U.S.S.R. theater nuclear weapons inventories number in the several thousands, the P.R.C. total nuclear weapons inventory (strategic and theater) probably numbers in the few hundreds. As noted earlier, however, the P.R.C. nuclear weapons stockpile is expected to increase rapidly over the next few years, as fissionable material production facilities are expanded.

The U.S. theater nuclear-capable land-based forces include units with tactical aircraft, tactical surface-to-surface missile and rocket launchers, artillery, SAMs, and atomic demolition munitions (ADMs), but no medium range/intermediate range ballistic missiles (MR/IRBMs) or medium bombers. The Soviet theater nuclear-capable land-based forces include MR/IRBM launchers, medium bombers in long-range aviation, light bombers and fighters in tactical air units, and tactical surface-to-surface missile and rocket launchers (and possibly artillery and ADMs) in ground units.

A U.S. Navy F-14 Tomcat fighter aircraft prepares to go down the catapult track (top left), for launching from the flight deck of the attack aircraft carrier USS Forrestal. At bottom left, the Soviet helicopter missile cruiser Moskva, ship right, takes on fuel from the Soviet fleet oiler Boris Chilokin.



The U.S. theater nuclear-capable naval forces include carrier-based aircraft, SAM launchers on surface ships, and a wide variety of antisubmarine warfare (ASW) weapons, but no cruise missile launchers. The Soviet theater nuclear-capable naval forces include cruise missile launchers on surface ships and submarines, medium bombers in naval aviation units, and possibly ASW weapons, but as yet no carrier-based aircraft.

The P.R.C. theater nuclear-capable forces include MRBM and IRBM launchers, medium and light bombers, and other tactical aircraft. We do not believe the P.R.C. has nuclear-capable weapons for its naval forces at this time.

As I pointed out over the past few years, it is difficult to draw precise conclusions as to the relative balance between the U.S. and the U.S.S.R. in theater nuclear weapons. This is so because of the uncertainties inherent in estimating Soviet nuclear weapons inventories, as well as the problems involved in evaluating Soviet nuclear weapons technology, now that all testing is conducted underground. Nevertheless, I continue to believe that the U.S. is at least the equal of the U.S.S.R. in overall capability, and probably still the superior in nuclear weapons technology. The P.R.C., while still far behind the U.S. and the U.S.S.R., is now a significant nuclear power in its region.

I believe a final word is in order concerning the need for modernization of our tactical nuclear stockpile. Since, in many situations, a favorable military balance depends on the qualitative advantages we possess in our weapons systems, technical obsolescence can serve only to degrade the credibility of the U.S. nuclear deterrance in the eyes of both U.S. allies and potential enemies. Today's technology in warheads and delivery systems can provide an improved theater nuclear stockpile with greater accuracy, modern security devices, and a wider variety of yields. Exploitation of this technology would provide major improvements in response time, flexibility of employment, and a substantial reduction in the unintended collateral damage effects of theater nuclear weapons. This can be done while maintaining or improving the capability to destroy military targets, especially enemy maneuver units in proximity to friendly troops.

The only new theater nuclear warhead or bomb in production now is the warhead for Lance, which currently is being deployed to Europe, and as I mentioned earlier, will replace Honest John and Sergeant for all U.S. units. We also have Congressional approval to build additional B-61 bombs with improved security features. This modern bomb provides our airmen with a versatile weapon compatible with improved aircraft design.

The most important progress in our modernization efforts for tactical nuclear weapons has been realized in the form of advance technology concepts on the part of the Atomic Energy Commission (AEC) laboratories. The Services, working in close concert with the AEC, are insuring that only the more flexible weapon concepts, which provide for efficient use of nuclear materials, shorter response time, lower collateral damage, and enhanced security, are recommended for modernization candidates.

Middle East

No discussion of the relative military posture between the U.S. and U.S.S.R. would be complete without an analysis

of the recent conflict in the Middle East; its genesis, lessons, and consequences in terms of U.S. interests in the area.

Strategically, the Middle East is important because of two major factors—one geographical and the other geological. Geographically, the Middle East is the corridor connecting the Eastern Hemisphere's three major continents. It is the avenue through which a Soviet strategic line of communication to the Far East may be established. The advent of supertankers and intercontinental aircraft may have lessened the area's geographical importance, but certainly has not eliminated it. In addition, the eastern Mediterranean is vital to the defense of NATO's southern flank. Geologically, the primary resource of the Middle East is oil. Middle East oil supplied 13 percent of pre-boycott U.S. demand, 75 percent of Western Europe's, and 85 percent of Japan's. Within the next decade, there is not likely to be significant diminution in the dependence of the industrialized West and Japan on the Middle East. Prior to initiation of the President's Energy Program, projections indicated that the U.S. could require Middle East oil to fulfill over 30 percent of our needs in the 1980s. One-third of the non-Communist world's supply of oil is projected to come from Saudi Arabia and Iran alone.

Superimposed on these strategic considerations is the longstanding political commitment made by both the Congress and the President to the survival of Israel. The credibility of this commitment, like all other U.S. international obligations, depends on the proven past record of performance by the United States, including the performance of our Armed Forces. Further complicating the situation is the fact that the area is the birthplace of three of the world's great religions.

It is against this background that the varied, compound, and interdependent objectives of the United States must be viewed. Peace and stability are our principal national objectives, and defusing the Middle East crisis is central to global security. This point, where the interests of major powers converge, has all the necessary ingredients for being the cockpit for great power confrontation; and yet, there are political and military forces at work well outside the scope of the usual "Communist" and "Free World" interface. The area threatens to be the "Balkans" of the late 20th Century.

Second only to peace is the crucial need to insure access for both the U.S. and her allies to the energy resources of the area. Until substitute energy sources are established, we will remain dependent, in part, upon oil from the Middle East. Also present here is the potential for divisiveness which could damage severely the cohesion of the Atlantic community and U.S.-Japanese relations. The fragmentation of U.S. alliances which could result from the issue is a matter of grave concern. Serious diplomatic efforts to reduce this potential divisiveness continue.

A further U.S. goal remains the denial of hegemony over this strategic area by the Soviet Union or any other power with interests inimical to the United States—ambitions not unknown to Russian history. Domination of the area by such a power would endanger NATO's southern flank, reduce U.S. mobility, and endanger our lines of communication. It also would sever the economic and military relationships we have so carefully nurtured in the interest of the region's stability, progress, and independence.

On October 6, 1973, the diversity, turmoil, mutual fear, and mistrust, rampant in the region, again passed over the threshold of semi-controlled tension—neither war nor peace—into conflict for the fourth time since Israel's founding. A combined Arab force of over 2,000 tanks and 100,000 infantry engaged an as yet not fully mobilized Israeli force of about 400 tanks and 5,000 infantry, simultaneously, in the Sinai and on the Golan Heights. The conflict was violent and costly. The supply and reequipping of the Arab states by the Soviet Union is estimated to have cost in excess of $2.6 billion. Efforts to insure an uninterrupted flow of supplies to Israel during the conflict in order to maintain a balance of forces in the area, resulted in U.S. expenditures of about $1 billion, including airlift operating costs of $42 million. Congress promptly enacted an Emergency Security Assistance Act providing $2.2 billion for Israel. When the ceasefire became effective on October 24, 1973, the Israelis held the dominant terrain in the Golan Heights and a sizable new segment of Syrian territory. On the Sinai front, Israel had established a bridgehead across the Suez Canal and nearly surrounded the Egyption 3d Army of about 25,000 men. The Soviet Union had a naval force of 96 ships, including 29 modern surface combatants and 23 submarines, in the Mediterranean—at their peak strength—a force equal to the total number of such ships operated out of home waters by the U.S.S.R. worldwide in 1969.

There has been much commentary and repeated analysis of this conflict, a great deal of which would give the impression that a new era of warfare has been entered and that the "lessons learned" are of such significance that new military texts are required. In my view, this impression is unjustified. Time-honored strategic and tactical concepts have been underlined, reinforced, and footnoted—not repealed or replaced. These footnotes to military history are, however, important and worthy of consideration.

First, ready, in-being, deployed forces are essential to maintaining the territorial integrity of any area whose defense is required. The October War presented striking illustrations of two considerations which traditionally have supported this concept. The Israeli Defense Force (IDF) intelligence organization possesses a well-deserved reputation for excellence; yet, the attackers were able to achieve almost complete strategic surprise. They masked their preparations behind a facade of routine exercises, a carefully executed political deception plan, a cloak of secrecy, and good communications security, including extensive secure landline communications.

Military capability has been described as being the product of men, material, and morale, with the result that as any one factor approaches zero—capability approaches zero. This war, like most, was decided primarily by the impact of leadership, ability, and training.

The IDF faced a force with qualitative and quantitative advantages in equipment, quantitative advantages in personnel, and the benefit of tactical surprise. The attacking force executed a thoroughly rehearsed simple plan and gained their initial objectives. However, the IDF ultimately achieved dominant positions on both fronts.

Adaptability and flexibility of leadership were characteristics very apparent

A Russian soldier prepares to fire a hand-held SA-7 surface-to-air missile. The four-foot long SA-7 is a passive infra-red homing weapon which carries a high-explosive warhead.

in the IDF. The initiative displayed by officers of all ranks was often the key to success. IDF doctrine requires commanders to stay forward to "read the battle." Although the price was high, the advantages gained through decisive leadership at the critical moment made the losses worthwhile. On the other hand, the Egyptians and Syrians were well trained in manning Soviet equipment and executing Soviet tactics.

This conflict reaffirmed that in the last analysis, the success or failure of an investment in national security depends upon the ability to attract to the service of the country (both active and reserve) outstanding young men and women who will rise to positions of military leadership responsibility. There is a difference between leadership and management. Leadership is of the spirit, compounded of personality, vision, and training. Its practice is an art. Management is a science and of the mind. Managers are necessary; leaders are indispensable. We, too, must continue to create and inspire military leaders—junior and senior.

Additionally, the classic doctrine that the priority of employment of air assets must be given to gaining and maintaining air superiority over the battlefield has been proven once again. Today, gaining air superiority includes defeating enemy SAMs in detail. Until enemy air defenses are degraded, any application of aerial firepower will be costly, but the losses will go down as air defenses are taken out. This was made clear during the Linebacker II operation in North Vietnam and again during the Middle East war. In the interim, ground forces must be capable of fighting with reduced reliance upon close air support. This can be accomplished by continuing to equip and maintain a balanced, mutually supporting, combined arms team of infantry, artillery, and armor.

The Soviet Union has devoted considerable effort toward development of a SAM and antiaircraft artillery (AAA) capability, and in both Vietnam and the Middle East, has demonstrated a willingness to deploy SAMs and AAA extensively outside the Soviet Union and Warsaw Pact countries. The surface-to-air arsenal provided to the Arabs includes SA-2, SA-3, SA-6, and SA-7 missile systems; 57 mm, 85 mm, and 100 mm guns with Fire Can fire control radar; and ZSU-23-4, ZPU-4, ZPU-1, and 37 mm plus smaller crew-served weapons and individual weapons. In both Egypt and Syria, SAM systems were well forward, with many firing units located within about 50 km of the line of contact. Additionally, massive numbers of SA-7 missiles (both hand-held and possibly mounted on BRDMs) and AAA guns were in the same area. Supporting these weapon systems was a surveillance radar system providing complete overlapping coverage at all altitudes. This defensive belt was both dense and thick. In order to achieve air superiority in the face of such defenses, it is necessary to avoid, suppress, or destroy such systems. ECM and the ability to locate and destroy mobile SAMs must be modern and sophisticated. Standoff weapons can play a major role in this effort. The Air Force is applying special management emphasis to the accelerated development and procurement of systems to suppress air defenses.

On the other side of the coin, we know that a land army can provide initial defense against a modern tactical air attack by extensive employment of mobile, integrated surface-to-air missile system; but for defense in depth, these ground force weapons must be complemented by air superiority fighters. We are developing, therefore, a program to provide a more mobile, capable, and responsive family of battlefield air defense weapons and are reexamining deployment tactics and the basis for determining surface-to-air launcher levels.

Finally, the lessons and impact of the war with regard to direct U.S. operations should be addressed. Three facets are of particular concern; supply levels and production base, mobility, and operating bases.

The enormous expenditure of missiles, artillery shells, and antitank munitions, together with the level of equipment attrition, demonstrates once again the necessity of maintaining ample stocks of conventional munitions and equipment.

Difficulties experienced as a result of providing moderate quantities of equipment and munitions to Israel have emphasized the magnitude of worldwide deficiences in the level of arms, munitions, and war material maintained by the United States. These serious shortages of specific types of munitions are

compounded by distribution problems and inadequate storage facilities overseas. Critical shortages of equipment and secondary items exist. New requirements from future crises in Southeast Asia, the Middle East, or elsewhere for similar support would further complicate the problem and could degrade significantly our conventional deterrent.

The conflict once again demonstrated that an efficient logistic system is the backbone of any sustained combat capability. If we are to provide our forces with that degree of material readiness sufficient to conduct a conventional defense in NATO or elsewhere and to provide our allies with the ability to defend themselves, we must quickly build up inventory levels for all items of supply and equipment in conjunction with establishing warm production bases for selected high consumption items. We anticipate establishing a CONUS-based stock of munitions and equipment which can be used to support allies under emergency conditions, and improving and enlarging storage facilities for prepositioned war reserve stocks overseas in order to improve short-term response capability and to relieve the immediacy of the demand for airlift/sealift in the event of hostilities.

The Soviet Union again demonstrated its increasing capability to project its influence and military power strategically beyond its contiguous borders. For the first time, this was accomplished by a rapid, continuous airlift coordinated with an impressive sealift. The threat to the peace of the world has been increased by this newly portrayed capability to introduce and maintain some of the most sophisticated Soviet weapons far outside the land mass of the U.S.S.R.

Effective strategic movement of war materials depends upon the complementing capabilities of airlift and sealift. We must retain the capability to respond rapidly with airlift to move personnel and essential supplies and equipment, and to provide sealift capability for the non-air-transportable equipment and heavy tonnages required for sustained operations.

U.S. resupply of Israel demonstrated the excellent capabilities of the C-5A and C-141. Over 500 total sorties insured an uninterrupted flow of essential supplies while the conflict continued. Increased numbers of outsized and oversized aircraft are essential if we are to achieve the airlift capabilities necessary to support our NATO commitment and to support the national policy of providing the material necessary for our partners to repel aggression, using their own manpower in their own defense.

Sealift and protection of sea lines of communication are also essential to both contingency and follow-on support operations. The airlift mounted in the Middle East conflict received well-deserved praise. Not so well publicized is the fact that from October 6, 1973, to date, sealift accounted for over 70 percent of the total tonnage moved. In order to reestablish and maintain an effective strategic movement capability, sealift forces must be augmented and modernized as a necessary complement to strategic airlift. This must include maintaining and modernizing sufficient naval escorts and carrier task forces to protect these sealift forces enroute. We also must continue to insure that our naval forces are capable of responding as fully and rapidly as they responded to this crisis.

Finally, the issue of operating bases must be faced. The United States was disappointed, but not surprised, when some of our allies did not perceive their national interests as being identical to ours. Without the cooperation of Portugal, which consented to the use of Lajes, the resupply operation which made Israel's survival possible could not have been conducted without great hazard and almost prohibitive cost. The world has shrunk in political terms, but it is still just as many miles from a U.S. depot in Arkansas to the Middle East as ever. If we are to be able in the future to respond to a call for help of the nature and magnitude of the Israeli operation, we must continue to develop and invest in secure bases, where we can operate as free of foreign political constraints as possible, while still maintaining our alliance system. The best runway, storage facilities, geopolitical location, or deep water port is of little utility if political constraints preclude its use.

Ultimately, the issue is whether the United States can afford to rely solely upon good faith of others when it is believed that the vital interests of the United States or of one of its allies are in imminent peril. If we are to rely on our ability to respond to conflict as a deterrent, then we must face the consequences of forward-basing U.S. air, ground, and sea forces in areas where our important interests may be altered by military or political compulsions beyond our control. In the long run, assuming we maintain the proper mix of ready, mobile, and versatile general purpose forces, these consequences of forward-basing will pose far fewer dangers for the U.S. than would the withdrawal of these forward-deployed forces.

Conclusion

I believe the concerns I have expressed over the aggressive modernization effort being undertaken by the Soviet Union in both strategic and general purpose programs have been fully substantiated. The new capabilities which these programs will provide to the U.S.S.R. must weigh heavily in any determination of the future plans for our Nation.

The Joint Chiefs of Staff recognize and appreciate the solemn constitutional obligation placed upon the Members of Congress to personally consider and collectively enact, during the next few months, appropriate legislation to "raise," "support," "provide," and "maintain" Armed Forces for the "common Defence.' As your uniformed military advisers, we strongly recommend that you support in full the President's Defense Program and Budget for Fiscal Year 1975 and the supplemental request for Fiscal Year 1974.

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